clarion

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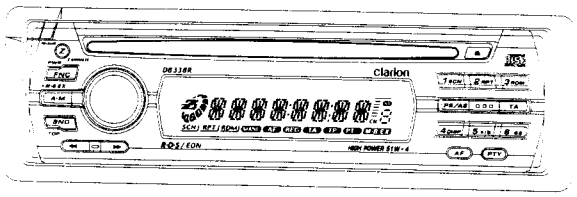
Service Manual



DB338R

RDS-EON FM/MW/LW
Radio CD Combination

Model **DB338R/DB338RB**
(PE-2580E-A/E-B)

BD239R/BD239RG

Model **DB238R**
(PE-2581E-A/E-B/E-C)

SPECIFICATIONS

Radio section

Tuning system:	PLL synthesizer tuner
Receiving frequencies:	FM : 87.5 to 108 MHz (0.05 MHz steps)
	MW : 531 to 1602 kHz (9 kHz steps)
	LW : 153 to 279 kHz (3 kHz steps)

CD player section

System:	Compact disc digital audio system
Frequency response:	10 Hz to 20 kHz (+1/-1 dB)
Signal to noise ratio:	100 dB (1 kHz) IHF-A
Dynamic Range:	95 dB (1 kHz)
Distortion:	0.01%

General

Output power :	27 W x 4 (DIN45324, +B=14.4 V)
Power supply voltage:	14.4 V DC (10.8 V to 15.6 V allowable), negative ground
Power consumption:	Less than 15 A
Speaker impedance:	4ohm(4ohm to 8ohm allowable)
Auto antenna rated current:	500 mA or less
Weight:	1.15 kg
Dimensions:	178(W) x 50(H) x 155(D)mm

* Specifications and design are subject to change without notice for further improvement.

NOTE

* We cannot supply PWB with component parts in principle. When a circuit on PWB has failure,please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.
* CD-ROM discs cannot be played by this unit.

COMPONENTS

PE-2580E/PE-2581E

Main unit	----------	1
Mounting bracket	300-7742-00	1
DCP case	335-6035-20	1
Escutcheon(OUT-ES)		1
Only PE-2580E-A/B/PE-2581E-C	370-6029-00	1
Only PE-2581E-A/B	370-6029-01	1
Parts bag	----------	
Removal key	331-2497-00	2
Rubber part	345-3653-20	1
Screw	716-0726-01	1
A-lead	850-6681-50	1

FEATURES

1. 1-Bit D/A Converters and 8-Times Oversampling Digital Filter.
2. DIN Chassis with Detachable Control Face with Green Negative LC Display.

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To engineers in charge of repairor inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1.Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability(PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2.Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulationtubes,bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3.Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

4.Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5.Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

6. Cautions in handing flexible PWB

Before working with a soldering iron, make sure that the iron tip temperature is around 270 °C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

8.Cautions in checking that the optical pickup lights up.

The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.

9.Cautions in handing the optical pickup

The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body.Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

9-1.Laser diode

The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

9-2. Actuator

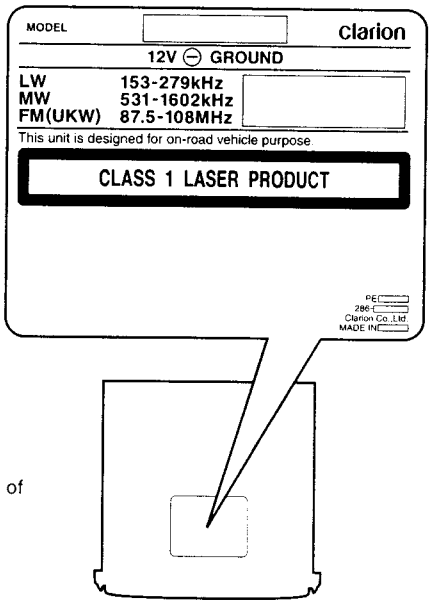
The actuator has a powerful magnetic circuit. If a magnetic material is put close to it, its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

9-3.Cleaning the lens

Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

CAUTIONS

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUST". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.

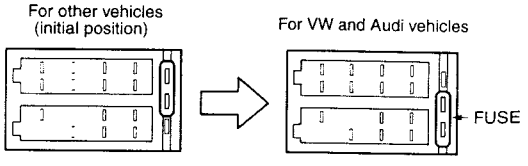


Bottom view of Main Unit

NOTES OF ISO CONNECTOR

1. For VW and Audi vehicles, change the position of fuse installation as shown on the diagram.(Figure 1)

ISO CONNECTOR type



Main unit side ISO connector

Figuer 1

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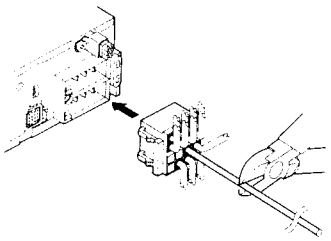
2. When the car stereo is installed in 1998 and later Volkswagen models, make sure to cut the car lead wire connected the A-5 terminal. (A breakdown could occur if the lead wire is not cut.) After cutting the lead wire, insulate the front end of the lead wire with insulation tape to prevent the risk of short-circuits. (Figure 2)

Note: Before cutting the lead wire, disconnect the car battery - (negative) cable.



Figuer 2

3. When the Main unit is also connected to an external amplifier in a wiring procedure, connect REMOTE on the external amplifier to the previously cut lead wire on the side of the connector.

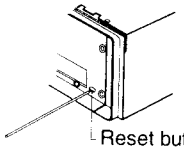
ERROR DISPLAYS

If an error occurs, one of the following displays is displayed.
Take the measures described below to eliminate the problem.

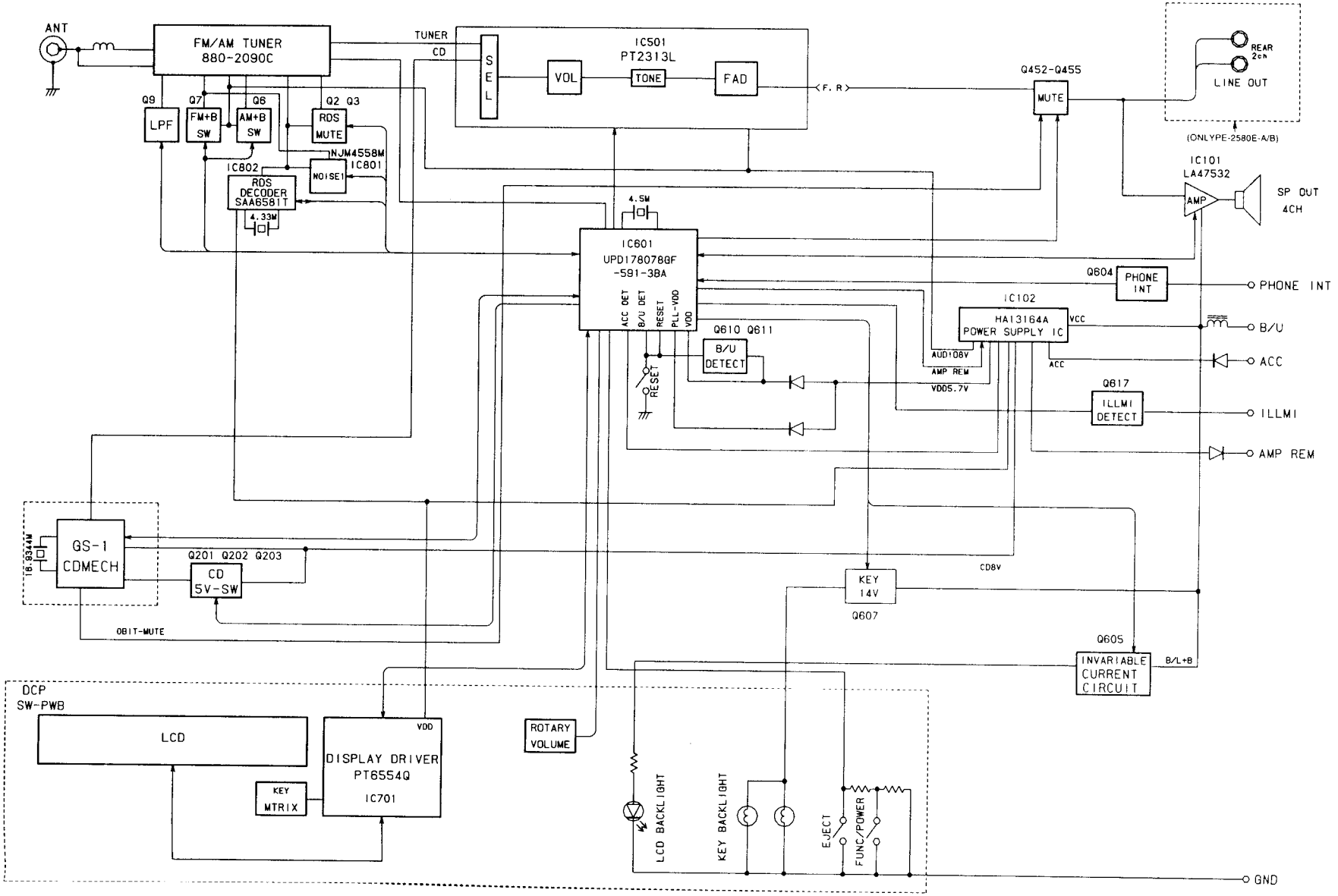
Error Display	Cause	Measure
ERROR 2	A CD is caught inside the CD deck and is not ejected.	This is a failure of CD deck' s mechanism.
ERROR 3	A CD cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped-disc.

If an error display other than the ones described above appears, press the reset button.

TROUBLESHOOTING

Problem	Cause	Solution
Power does not turn on. (No sound is produced.)	Fuse is blown.	Replace with a fuse of the same amperage. If the fuse blows again.
	Incorrect wiring.	Read the attached "Installation/Wire connection Guide" once again and wire properly.
Compact disc cannot be loaded.	Another compact disc is already loaded.	Eject the compact disc before loading the new one.
Sound skips or is noisy.	Compact disc is dirty.	Clean the compact disc with a soft cloth.
	Compact disc is heaviiy scratched or warped.	Replace with a compact disc with no scratches.
Sound is bad directly after power is turned on.	Water droplets may form on the internal lens when the car is parked in a humid place.	Let dry for about 1 hour with the power on.
Nothing happens when buttons are pressed. Display is not accurate.	Microprocessor has malfunctioned due to noise, etc.	Turn off the power, then press the Release button and remove the DCP. Press the reset button for about 2 seconds with a thin rod.  Reset button
	DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.

BLOCK DIAGRAM



EXPLANATION OF IC

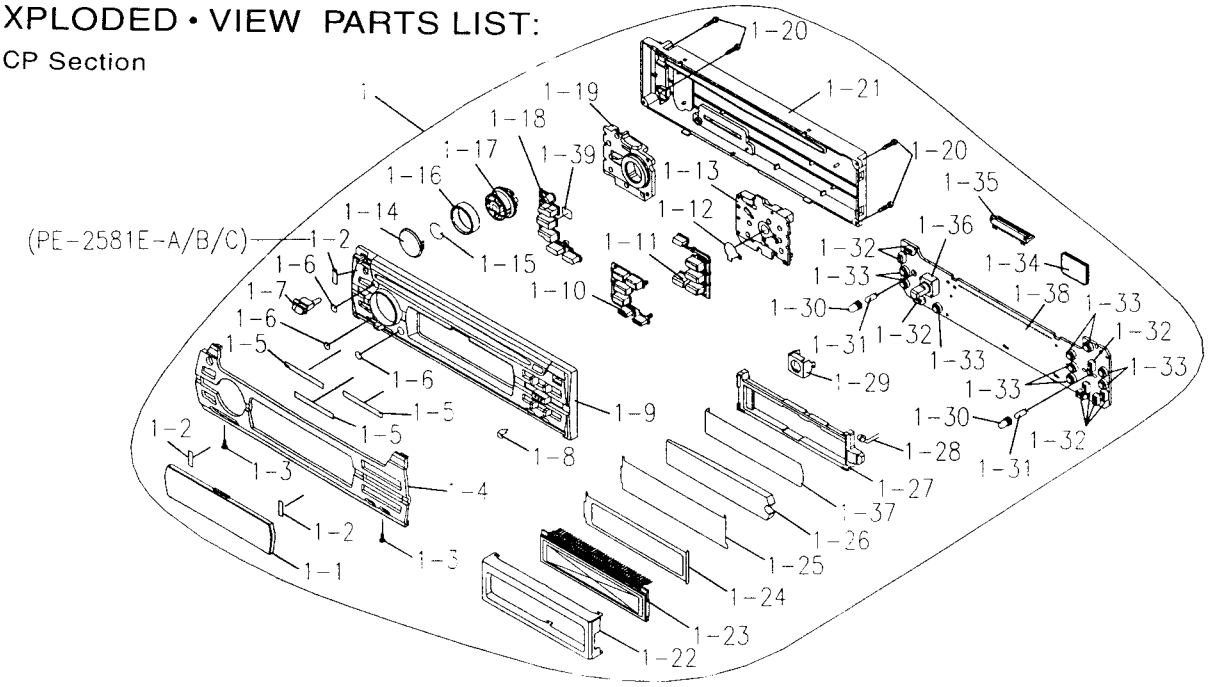
052-1935-00 uPD178078GF-591-3BA CD & RDS Radio Control

1.Terminal Description

pin 1: PHONE_INT : IN : The telephone interrupt signal input.
pin 2: $\overline{\text{KEY_INT}}$: IN : Key interrupting signal input.
pin 3: LCD_SI : IN : Serial data input from the LCD driver.
pin 4: LCD_SO : O : Serial data output to the LCD driver. ry encoder.
pin 5: LCD_SCK : O : The clock pulse output to the LCD driver. ry encoder.
pin 6: LCD_CE : O : The chip enable signal output to the LCD driver.
pin 7: $\overline{\text{CD_ZMT_CUT}}$: O : Zero cross mute cutting signal output.
pin 8: $\overline{\text{SYS_MUTE}}$: O : System muting signal output.
pin 9: REM +B : O : The system power supply control signal output.
pin 10: AMP-REM : O : Standby signal output to Audio power amplifier.
pin 11: NU : IN: Connected to GND.
pin 12: NU : O : Not in use.
pin 13: NU : IN: Connected to GND.
pin 14: NU : IN: Connected to GND.
pin 15: NU : IN: Connected to GND.
pin 16: NU : IN: Connected to GND.
pin 17: NU : IN: Connected to GND.
pin 18: NU : IN: Connected to GND.
pin 19: NU : IN: Connected to GND.
pin 20: NOSE-DISCHG : O : RDS noise discharge signal output.
pin 21: VOL_CLK : O : The clock pulse output to the volume IC.
pin 22: VOL_DATA : O : The serial data output to the volume IC.
pin 23: KEY_A/D : IN: Input terminal of A/D converter for Key judgment.
pin 24: RDS-SM : IN: The input terminal of Internal A/D converter to monitor the FM radio field strength.
pin 25: RDS-NOISE : IN: RDS noise level detector input.
pin 26: NU : IN: Connected to GND.
pin 27: VDD : - : Positive supply voltage.
pin 28: VOL_CW : IN : Volume control pulse input from the rotary encoder.
pin 29: VOL_CCW : IN : Volume control pulse input from the rotary encoder.
pin 30: NU : IN: Connected to GND.
pin 31: NU : IN: Connected to GND.
pin 32: GND : - : Ground.
pin 33: CPU REG : - : The capacitor connection for CPU.
pin 34: VDD : - : Positive supply voltage.
pin 35: OSC REG : - : The capacitor connection for the internal oscilator.
pin 36: X_OUT : - : Crystal connection.
pin 37: X_IN : - : Crystal connection.
pin 38: GND : - : Ground.
pin 39: NU : IN : Connected to GND.
pin 40: GND : - : Ground.
pin 41: AM-IF : - : The input terminal of the internal counter for AM IF.
pin 42: FM-IF : - : The input terminal of the internal counter for FM IF.
pin 43: VDDPLL : - : Positive supply voltage for PLL.
pin 44: FM-OSC : - : The input terminal of the internal counter for FM OSC (Local Oscillation).
pin 45: AM-OSC : - : The input terminal of the internal counter for AM OSC (Local Oscillation).
pin 46: GND : - : Ground.
pin 47: FM-VT : - : The PLL error signal output for FM.
pin 48: AM-VT : - : The PLL error signal output for AM.
pin 49: GND : - : Ground.
pin 50: $\overline{\text{RESET}}$: - : Reset signal input.
pin 51: RDS_CLK : IN : RDS clock pulse input.
pin 52: RDS_DATA : IN : RDS serial data input.
pin 53: FM_ON : O : FM ON signal output.
pin 54: AM_ON : O : AM ON signal output.
pin 55: MUTE_SPEED : O : Station detection speedup command output.
pin 56: IF_REQ : O : IF counter output.
pin 57: FM_$\overline{\text{ST}}$/SD : IN: This port detects the station detection signal.
pin 58: RDS_MUTE : O: RDS mute signal output.
pin 59: $\overline{\text{M-TEST}}$: IN: The diagnosis ON signal input.
pin 60: $\overline{\text{TEST_ST}}$: O : Stereo display check command output.
pin 61: NU : IN: Not in use.
pin 62: FM-DX/LO : O: FM DX LOCAL control switch.
pin 63: NU : IN: Not in use.
pin 64: NU : IN: Not in use.
pin 65: NU : IN: Not in use.
pin 66: CD-5V_REM : O: 5V CD power supply circuit control signal output.
pin 67: ILL-REM : O: The power supply ON signal output for the illumination.
pin 68: NU : IN : Not in use.
pin 69: CD-TR-B : IN : The photo sensor signal input from the CD mechanism.
pin 70: CD-TR-A : IN : The photo sensor signal input from the CD mechanism.
pin 71: ILL-DET : IN : Illumination ON signal input.
pin 72: CD-LDCONT : I/O: Loading control signal input/output.
pin 73: CD-LDMUT : O : CD Loading Mute signal output.
pin 74: CD-UBCK : O : The clock pulse output to the CD IC.
pin 75: CD_BUS 3 : I/O: The data bus.
pin 76: CD_BUS 2 : I/O: The data bus.
pin 77: CD_BUS 1 : I/O: The data bus.
pin 78: $\overline{\text{B/U_DET}}$: IN : Backup detection signal input.
pin 79: ACC_DET : IN : ACC detection signal input.
pin 80: DC-OFFSET-DET : IN : Power IC offset signal input.
pin 81: CD_SBSY : IN : The sub Q data request command input from the CD IC.
pin 82: GND : - : Ground.
pin 83: CD_BUS 0 : I/O: The data bus.
pin 84: CD_CCE : O: The chip enable signal output to the CD IC.
pin 85: CD_SSTOP : IN : A loading, detects the chucking. And next, detects the inside limit of the pick up position.
pin 86: $\overline{\text{CD_CHCK_SW}}$: IN : The CD disk chucking signal input from the CD mechanism.
pin 87: NU : IN : Connected to GND.
pin 88: RDS-TEST : IN : The power supply ON signal output for the illumination.
pin 89: NU : IN : Connected to GND.
pin 90: $\overline{\text{CD-RESET}}$: O: The reset pulse output to the CD IC.
pin 91: NU : IN : Connected to GND.
pin 92: AM-DX/LO : O: The sensitivity selection signal output.
pin 93: NU : IN : Connected to GND.
pin 94: DIM-CONT : O: The dimmer control signal output.
pin 95: NU : IN : Connected to GND.
pin 96: STAND-BY : O : Standby signal output.
pin 97: NU : IN: Connected to GND.
pin 98: NU : IN : Connected to GND.
pin 99: VDD : - : Positive supply voltage.
pin100: GND : - : Ground.

EXPLODED • VIEW PARTS LIST:

DCP Section



NO.	PARTS NO.	DESCRIPTION	Q'TY
1	DCP-434-700	DCP ASSY(PE-2580E-A)	1
	DCP-435-700	DCP ASSY(PE-2580E-B)	1
	DCP-437-700	DCP ASSY(PE-2581E-A)	1
	DCP-438-700	DCP ASSY(PE-2581E-B)	1
	DCP-436-700	DCP ASSY(PE-2581E-C)	1
1-1	373-1003-00	DIAL-CVR	1
1-2	347-7000-00	DOUBLE FACE (PE-2580E-A/B)	2
		(PE-2581E-A/B/C)	3
1-3	778-6019-01	SCREW(PE-2580E-A/B) (M1.7 x 6)	2
1-4	371-5737-00	FACE PANEL(PE-2580E-A)	1
	371-5737-01	FACE PANEL(PE-2580E-B)	1
	335-6915-00	FACE PANEL(PE-2581E-A)	1
	335-6915-01	FACE PANEL(PE-2581E-B)	1
	335-6915-02	FACE PANEL(PE-2581E-C)	1
1-5	347-7003-00	DOUBLE FACE	3
1-6	347-7004-00	DOUBLE FACE	3
1-7	382-6615-00	BUTTON (PE-2580E-A/B/ PE-2581E-C)	1 1
	382-6615-01	BUTTON (PE-2581E-A/B)	1
1-8	331-3601-00	SURGE PLATE (PE-2580E-A/B)	1
1-9	370-6032-00	ESCUTCHEON(PE-2580 E-A/B/PE-2581-E-C)	1
	370-6032-01	ESCUTCHEON (PE-2581E-A/B)	1
1-10	382-6639-00	BUTTON(B)	1
1-11	382-6640-00	BUTTON(C)	1
1-12	347-7002-00	SHADE	1
1-13	335-6914-00	ILLUMI PLATE	1
1-14	380-5553-00	KNOB (CAP)	1
1-15	347-6988-00	DOUBLE FACE	1
1-16	345-5228-00	RUBBER RING	1

NO.	PARTS NO.	DESCRIPTION	Q'TY
1-17	380-5551-00	KNOB	1
1-18	382-6638-00	BUTTON(A)	1
1-19	380-6913-00	ILLUMI PLATE	1
1-20	716-0872-11	SCREW(M1.7 x 6)	5
1-21	335-6897-00	REAR CVR	1
1-22	331-3571-00	LCD CVR	1
1-23	379-1264-41	INDICATOR (PE-2580E-A/ PE-2581E-A/B/C)	1
	379-1264-40	INDICATOR (PE-2580E-B)	1
1-24	347-7005-00	BLACK FILM	1
1-25	347-7006-00	FILM	1
1-26	335-6891-00	ILLUMI PLATE	1
1-27	335-6890-00	LCD HOLDER	1
1-28	001-7046-00	DIODE(PE-2580E-A/ PE-2581E-C)	1
	001-7030-02	DIODE(PE-2580E-B)	1
	001-7070-00	DIODE(PE-2581E-A)	1
	001-7030-05	DIODE(PE-2581E-B)	1
1-29	331-3337-00	VR-HOLDER	1
1-30	345-5231-00	LAMP CAP(PE-2580E-A/ PE-2581E-C)	2
	345-5231-01	LAMP CAP(PE-2580E-B)	2
	345-5231-02	LAMP CAP(PE-2581E-A)	2
	345-5231-03	LAMP CAP(PE-2581E-B)	2
1-31	017-0444-00	PILOTLAMP	2
1-32	013-6016-50	SWITCH	8
1-33	013-6005-51	SWITCH	9
1-34	051-6013-50	IC	1
1-35	076-0615-00	PLUG	1
1-36	016-9900-84	VR W/SHAFT	1
1-37	347-7007-00	REFLECTOR	1
1-38	039-2300-00	SWITCH PWB (WITHOUT COMPONENT)	1
1-39	347-7001-00	SHADE	1

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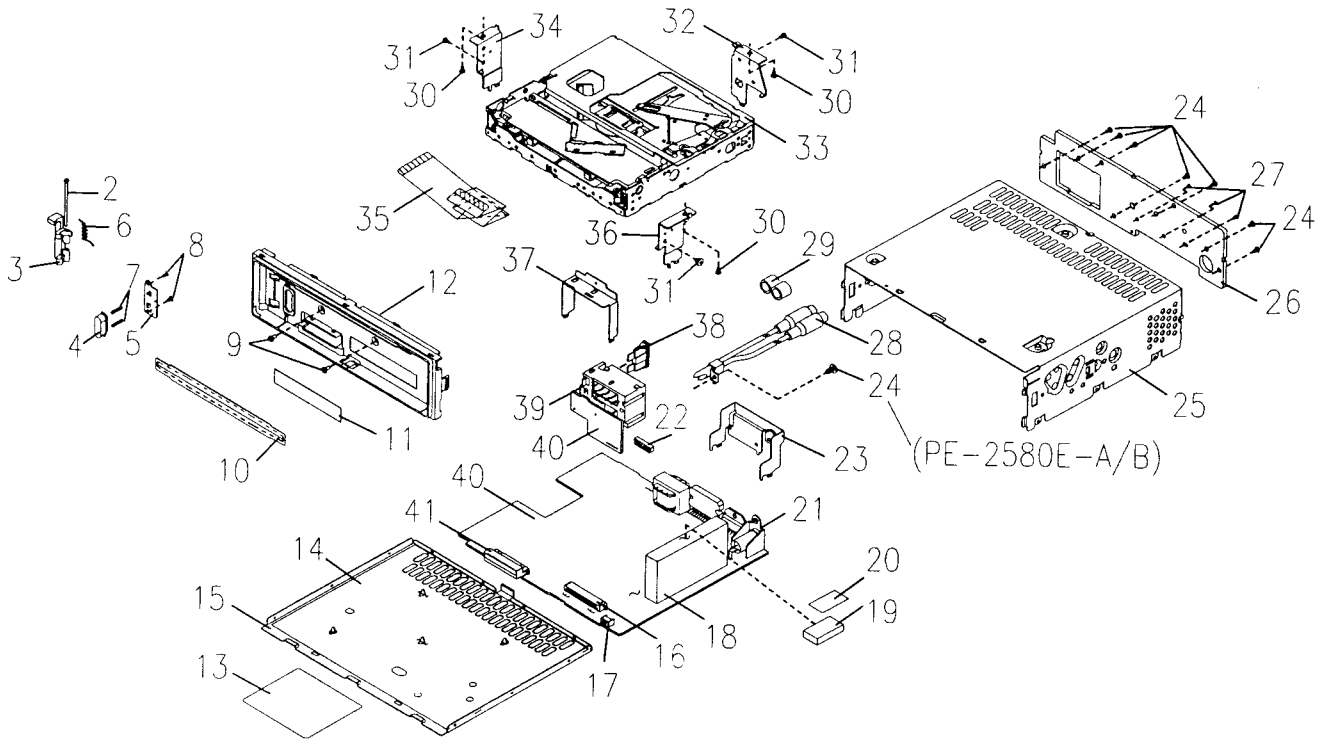
Main Section



NO.	PARTS NO.	DESCRIPTION	QTY
2	341-1627-00	SHAFT	1
3	335-5915-01	HOOK	1
4	382-4078-00	BUTTON(P-OUT)	1
5	331-2594-00	HOOK PLATE	1
6	750-3219-00	SPRING(F-HOOK)	1
7	750-3173-00	SPRING	2
8	716-0778-00	WAVE SCREW(M2 x 6)	2
9	780-2607-02	MACHINE SCREW(M2.6 x 7)	2
10	346-0097-00	LEATHER SHEET	1
11	291-0067-00	STICKER	1
12	370-6027-00	ESCUTCHEON(I)	1
13	286-6140-00	SETPLATE (PE-2580E-A)	1
	286-6141-00	SETPLATE (PE-2580E-B)	1
	286-6142-00	SETPLATE (PE-2581E-A)	1
	286-6143-00	SETPLATE (PE-2581E-B)	1
	286-6144-00	SETPLATE (PE-2581E-C)	1
14	347-6880-01	INSULATOR	1
15	311-1859-02	LOWER CASE	1
16	074-1237-76	OUTLET SOCKET	1
17	013-6103-00	TACT SWITCH	1
18	880-2090C	TUNER	1
19	345-5312-00	CUSHION	1
20	347-6341-00	E-SHEET	1
21	092-4000-51	ANT-RECEPT	1
22	076-0552-09	PLUG	1

NO.	PARTS NO.	DESCRIPTION	QTY
23	331-3612-00	IC HOLDER	1
24	714-3006-81	MACHINE SCREW(M3 x 6) (PE-2580E-A/B)	8
		(PE-2581E-A/B/C)	7
25	310-1778-00	UPPER CASE	1
26	313-1849-01	HEAT SINK	1
27	714-2610-81	MACHINE SCREW	3
28	855-5426-53	RCA PIN CORD (PE-2580E-A/B)	1
29	345-3799-20	RUBBER PART (PE-2580E-A/B)	2
30	714-3004-81	MECHINE SCREW(M3 x 4)	3
31	780-2603-02	MECHINE SCREW(M2.6 x 4)	3
32	331-3427-00	MECH BRKT(B)	1
33	929-0221-80	CD-MECH-MODULE	1
34	331-3570-00	MECH BRKT(L)	1
35	816-2627-50	FLAT CABLE	1
36	331-3569-00	MECH BRKT(R)	1
37	331-3426-00	CONNECT HOLDER	1
38	060-0057-57	ATUO-FUSE	1
39	074-1285-00	OUTLET SOCKET	1
40	039-2301-00	MAIN PWB (WITHOUT COMPONENT)	1
41	074-1217-00	OUTLET SOCKET	1

ELECTRICAL PARTS LIST:

Main PWB (B1) section

REF No.	PART No.	DESCRIPTION
IC101	051-2050-00	LA47532
IC102	051-3295-00	HA13164A
IC501	051-5031-90	PT2313L
IC601	052-1935-00	UPD178078GF-591-3BA
IC801	051-0350-93	NJM4558M
IC802	051-4607-90	SAA6581T
Q2	125-0199-93	KRA103S
Q3	125-4012-90	KTD1304
Q4	198-0669-00	2SK669
Q6	125-3004-90	KTA1504S
Q7	125-3004-90	KTA1504S
Q8	125-2199-93	KRC103S
Q9	198-0669-00	2SK669
Q10	192-2712-51	2SC2712GR
Q11	192-2712-51	2SC2712GR
Q13	125-2199-93	KRC103S
Q14	125-2199-93	KRC103S
Q201	125-4011-90	KTD863
Q202	125-4011-90	KTD863
Q203	125-0199-92	KRA102S
Q452	125-4012-90	KTD1304
Q453	125-4012-90	KTD1304
Q454	125-4012-90	KTD1304
Q455	125-4012-90	KTD1304
Q501	125-2199-96	KRC106S
Q502	125-0199-96	KRA106S
Q503	125-4010-90	KTC3875S
Q504	125-2199-96	KRC106S
Q507	125-2199-93	KRC103S
Q604	125-3004-90	KTA1504S
Q605	125-3005-90	KTA1273
Q606	125-2199-93	KRC103S
Q607	125-3005-90	KTA1273
Q610	125-0199-92	KRA102S
Q611	125-4010-90	KTC3875S
Q616	125-2199-93	KRC103S
Q617	125-4010-90	KTC3875S
Q801	125-2199-92	KRC102S
Q802	125-4011-90	KTD863
D102	001-0466-90	S5688B
D103	001-0466-90	S5688B
D104	001-0466-90	S5688B
D105	001-0466-90	S5688B
D106	001-0466-90	S5688B
D107	001-0466-90	S5688B
D108	001-0466-90	S5688B
D109	001-0466-90	S5688B
D110	001-0347-44	MA4082M
D201	001-0347-32	MA4056M
D203	001-0592-00	RM4Z
D204	001-0466-90	S5688B
D205	001-0466-90	S5688B
D501	001-0517-90	1SS355
D502	001-0517-90	1SS355
D601	001-0347-25	MA4047L
D604	001-0517-90	1SS355
D605	001-0517-90	1SS355
D606	001-0347-10	MA4030L
D612	001-0517-90	1SS355
D613	001-0466-90	S5688B
D614	001-0517-90	1SS355
D615	001-0466-90	S5688B
D801	001-0517-90	1SS355
D802	001-0517-90	1SS355
L1	010-2285-56	BLM21B222S

REF No.	PART No.	DESCRIPTION
L2	010-2285-56	BLM21B222S
L3	010-2230-69	5.6uH
L52	010-2003-04	COIL
L101	009-9006-60	CHOKE
L401	010-2285-56	BLM21B222S (PE-2580E-A/B)
L402	010-2285-56	BLM21B222S (PE-2580E-A/B)
L403	010-2285-56	BLM21B222S (PE-2580E-A/B)
L601	010-2230-88	220uH
L602	010-2230-52	0.22uH
L603	010-6003-02	10uH
L604	010-2230-52	0.22uH
L605	010-2230-64	2.2uH
L606	010-2230-64	2.2uH
L851	010-2230-88	220uH
X601	061-1064-00	4.5MHz
X891	061-3013-00	4.33MHz
C1	168-2232-55	25V0.022uF
C2	182-4753-65	50V4.7uF
C3	168-1022-55	50V1000PF
C4	182-1053-65	50V1uF
C5	168-2232-55	25V0.022uF
C6	168-2232-55	25V0.022uF
C7	182-4763-35	16V47uF
C8	168-2232-55	25V0.022uF
C9	168-2232-55	25V0.022uF
C10	168-6822-55	50V6800PF
C11	182-1073-35	16V100uF
C12	042-0631-50	10V100uF
C13	168-1032-55	50V0.01uF
C14	166-2096-50	50V2PF
C15	166-4711-50	50V470PF
C16	168-1032-55	50V0.01uF
C17	168-5622-55	50V5600PF
C18	182-3353-65	50V3.3uF
C19	168-3335-56	50V0.033uF
C22	166-1011-50	50V100PF
C24	166-3311-50	50V330PF
C27	168-1032-55	50V0.01uF
C28	168-2232-55	25V0.022uF
C29	168-4732-78	50V0.047uF
C30	168-1022-55	50V1000PF
C31	168-1022-55	50V1000PF
C32	166-1011-50	50V100PF
C34	168-1022-55	50V1000PF
C35	166-1011-50	50V100PF
C55	166-2201-50	50V22PF
C66	166-2201-50	50V22PF
C67	168-1032-55	50V0.01uF
C68	168-1022-55	50V1000PF
C69	168-1022-55	50V1000PF
C70	168-1022-55	50V1000PF
C71	168-1022-55	50V1000PF
C101	178-2242-78	25V0.22uF
C102	178-4742-78	25V0.47uF
C103	178-4742-78	25V0.47uF
C104	178-4742-78	25V0.47uF
C105	178-4742-78	25V0.47uF
C106	182-4763-35	16V47uF
C107	182-2263-35	16V22uF
C108	172-2231-15	50V0.022uF
C109	182-3353-65	50V3.3uF
C110	172-3331-15	50V0.033uF

REF No.	PART No.	DESCRIPTION
C111	172-3331-15	50V0.033uF
C112	172-3331-15	50V0.033uF
C113	172-3331-15	50V0.033uF
C114	172-3331-15	50V0.033uF
C115	172-3331-15	50V0.033uF
C116	172-3331-15	50V0.033uF
C117	172-3331-15	50V0.033uF
C118	178-4742-78	25V0.47uF
C119	178-4742-78	25V0.47uF
C120	178-4742-78	25V0.47uF
C121	178-4742-78	25V0.47uF
C122	166-4711-50	50V470PF
C123	166-4711-50	50V470PF
C124	166-4711-50	50V470PF
C125	166-4711-50	50V470PF
C126	166-4711-50	50V470PF
C127	166-4711-50	50V470PF
C128	166-4711-50	50V470PF
C129	166-4711-50	50V470PF
C130	166-4711-50	50V100PF
C214	042-0447-00	16V2200uF
C243	182-1073-35	16V100uF
C457	166-4711-50	50V470PF
C458	182-1063-35	16V10uF
C459	182-1063-35	16V10uF
C460	182-1063-35	16V10uF
C461	182-1063-35	16V10uF
C501	182-2253-65	50V2.2uF
C502	182-2253-65	50V2.2uF
C503	182-2253-65	50V2.2uF
C504	182-2253-65	50V2.2uF
C505	168-4722-55	50V4700PF
C506	168-4722-55	50V4700PF
C507	168-1042-78	25V0.1uF
C509	182-2263-35	16V22uF
C510	168-2722-55	50V2700PF
C511	168-2722-55	50V2700PF
C512	178-4742-78	25V0.47uF
C513	178-4742-78	25V0.47uF
C514	182-2253-65	50V2.2uF
C515	182-2253-65	50V2.2uF
C516	168-1042-78	25V0.1uF
C517	168-1042-78	25V0.1uF
C518	168-1042-78	25V0.1uF
C519	168-1042-78	25V0.1uF
C520	168-1822-55	50V1800PF
C521	168-1822-55	50V1800PF
C522	166-1011-50	50V100PF
C523	182-1073-35	16V100uF
C524	182-4753-65	50V4.7uF
C525	166-1011-50	50V100PF
C526	166-1011-50	50V100PF
C527	166-1011-50	50V100PF
C528	166-1011-50	50V100PF
C529	168-1042-78	25V0.1uF
C530	168-1042-78	25V0.1uF
C601	168-1032-55	50V0.01uF
C602	168-1042-78	25V0.1uF
C603	168-1042-78	25V0.1uF
C604	182-3353-65	50V3.3uF
C605	166-1007-50	50V10PF
C606	166-1011-50	50V100PF
C607	182-1073-35	16V100uF
C608	168-1032-55	50V0.01uF
C609	168-1042-78	25V0.1uF

DB238R
DB338R/RB
BD239R/RG

REF No.	PART No.	DESCRIPTION
C610	168-1042-78	25V0.1uF
C611	168-1042-78	25V0.1uF
C612	182-4763-35	16V47uF
C613	042-0631-50	10V100uF
C614	168-1042-78	25V0.1uF
C615	166-1011-50	50V100PF
C616	166-1201-50	50V12PF
C618	168-1042-78	25V0.1uF
C620	168-1032-55	50V0.01uF
C625	182-4763-15	6.3V47uF
C626	182-1063-35	16V10uF
C627	168-1032-55	50V0.01uF
C628	168-4732-78	50V0.047uF
C629	168-1022-55	50V1000PF
C630	168-1022-55	50V1000PF
C631	168-1022-55	50V1000PF
C632	168-1022-55	50V1000PF
C633	182-2263-35	16V22uF
C801	168-2232-55	25V0.022uF
C802	166-8211-50	50V820PF
C803	166-6811-50	50V680PF
C804	168-1032-55	50V0.01uF
C805	168-2232-55	25V0.022uF
C806	182-4763-35	16V47uF
C807	182-2253-65	50V2.2uF
C858	166-3311-50	50V330PF
C859	166-5611-50	50V560PF
C860	166-4701-50	50V47PF
C861	166-5601-50	50V56PF
C862	182-4763-15	6.3V47uF
C863	168-1042-78	25V0.1uF
C864	168-1042-78	25V0.1uF
C907	168-1032-55	50V0.01uF
R1	119-1021-15	1/16W1kohm
R2	119-5611-15	1/16W560ohm
R3	119-3311-15	1/16W330ohm
R4	119-3341-15	1/16W330kohm
R5	119-4721-15	1/16W4.7kohm
R6	119-1021-15	1/16W1kohm
R7	119-5621-15	1/16W5.6kohm
R8	119-1031-15	1/16W10kohm
R9	119-1011-15	1/16W100ohm
R10	119-4721-15	1/16W4.7kohm
R12	116-3311-15	1/4W330ohm
R14	119-5631-15	1/16W56kohm
R16	119-2221-15	1/16W2.2kohm
R17	119-5631-15	1/16W56kohm
R18	119-1031-15	1/16W10kohm
R19	119-1031-15	1/16W10kohm
R20	119-4721-15	1/16W4.7kohm
R21	119-1021-15	1/16W1kohm

REF No.	PART No.	DESCRIPTION
R23	119-1021-15	1/16W1kohm
R24	119-2221-15	1/16W2.2kohm
R25	119-2221-15	1/16W2.2kohm
R31	119-1031-15	1/16W10kohm
R100	119-1031-15	1/16W10kohm
R101	119-0000-05	0kohm
R102	119-1031-15	1/16W10kohm
R103	119-1231-15	1/16W12kohm
R105	119-1021-15	1/16W1kohm
R110	119-2291-15	1/16W2.2ohm
R111	119-2291-15	1/16W2.2ohm
R112	119-2291-15	1/16W2.2ohm
R113	119-2291-15	1/16W2.2ohm
R114	119-2291-15	1/16W2.2ohm
R115	119-2291-15	1/16W2.2ohm
R116	119-2291-15	1/16W2.2ohm
R117	119-2291-15	1/16W2.2ohm
R201	116-2291-15	1/4WS2.2ohm
R202	116-2291-15	1/4WS2.2ohm
R203	116-2211-15	1/4WS220ohm
R205	116-4721-15	1/4W4.7kohm
R470	119-2231-15	1/16W22kohm
R471	119-2231-15	1/16W22kohm
R472	119-2231-15	1/16W22kohm
R473	119-2231-15	1/16W22kohm
R476	119-3311-15	1/16W330ohm
R477	119-3311-15	1/16W330ohm
R478	119-3311-15	1/16W330ohm
R479	119-3311-15	1/16W330ohm
R481	119-1021-15	1/16W1kohm
R482	119-1021-15	1/16W1kohm
R483	119-1021-15	1/16W1kohm
R484	119-1021-15	1/16W1kohm
R485	119-1021-15	1/16W1kohm
R486	119-1021-15	1/16W1kohm
R501	119-2221-15	1/16W2.2kohm
R502	119-2221-15	1/16W2.2kohm
R503	119-5621-15	1/16W5.6kohm
R504	119-5621-15	1/16W5.6kohm
R505	119-1031-15	1/16W10kohm
R506	119-1031-15	1/16W10kohm
R507	119-2721-15	1/16W2.7kohm
R508	119-2721-15	1/16W2.7kohm
R509	119-2721-15	1/16W2.7kohm
R510	119-2721-15	1/16W2.7kohm
R511	119-1011-15	1/16W100ohm
R512	119-1011-15	1/16W100ohm
R513	119-1011-15	1/16W100ohm
R514	119-1011-15	1/16W100ohm
R515	119-1011-15	1/16W100ohm
R516	119-1011-15	1/16W100ohm

REF No.	PART No.	DESCRIPTION
R537	119-8221-15	1/16W8.2kohm
R538	119-1021-15	1/16W1kohm
R540	119-2231-15	1/16W22kohm
R602	119-1041-15	1/16W100kohm
R604	119-1031-15	1/16W10kohm
R606	119-6831-15	1/16W68kohm
R611	119-1041-15	1/16W100kohm
R612	119-1041-15	1/16W100kohm
R613	119-4731-15	1/16W47kohm
R614	119-4731-15	1/16W47kohm
R615	119-4731-15	1/16W47kohm
R616	119-4721-15	1/16W4.7kohm
R617	119-1031-15	1/16W10kohm
R618	116-1511-15	1/4W150ohm
R619	116-1221-15	1/4W1.2kohm
R620	119-2231-15	1/16W22kohm
R621	119-2231-15	1/16W22kohm
R624	119-1041-15	1/16W100kohm
R625	119-1041-15	1/16W100kohm
R626	119-1031-15	1/16W10kohm
R627	119-1031-15	1/16W10kohm
R630	119-2231-15	1/16W22kohm
R631	119-4721-15	1/16W4.7kohm
R632	119-1031-15	1/16W10kohm
R635	119-1021-15	1/16W1kohm
R636	119-1021-15	1/16W1kohm
R637	119-1021-15	1/16W1kohm
R638	116-1031-15	1/4W10kohm
R639	116-1021-15	1/4W1kohm
R647	119-4721-15	1/16W4.7kohm
R648	119-4721-15	1/16W4.7kohm
R649	119-1031-15	1/16W10kohm
R653	119-5611-15	1/16W560ohm
R654	119-1031-15	1/16W10kohm
R655	119-4731-15	1/16W47kohm
R656	116-2231-15	1/4W22kohm
R657	119-1031-15	1/16W10kohm
R801	119-3331-15	1/16W33kohm
R802	119-1031-15	1/16W10kohm
R803	119-1041-15	1/16W100kohm
R804	119-2211-15	1/16W220ohm
R805	119-1231-15	1/16W12kohm
R806	119-3321-15	1/16W3.3kohm
R807	116-3311-15	1/4W330ohm
SUP51	060-0122-91	DSP141N
VR101	012-4431-13	470kohm
S601	013-6103-00	SWITCH
J602	074-1217-00	OUTLETSOCKET
J603	074-1237-76	OUTLETSOCKET

Switch PWB (B2) section

REF No.	PART No.	DESCRIPTION
IC701	051-6013-50	PT6554LQ
D701	001-7030-02	DIODE
		(PE-2580E-B)
	001-7030-05	DIODE
		(PE-2581E-B)
	001-7046-00	DIODE
		(PE-2580E-A)
	001-7046-00	DIODE
		(PE-2581E-C)
	001-7070-00	DIODE
		(PE-2581E-A)
D702	001-0529-35	MA8062M

REF No.	PART No.	DESCRIPTION
D703	001-0529-41	MA8075M
D704	001-0529-41	MA8075M
D705	001-0529-41	MA8075M
D706	001-0529-41	MA8075M
D707	001-0529-35	MA8062M
D708	001-0529-35	MA8062M
		(PE-2581E-A/B/C)
D709	001-0529-35	MA8062M
		(PE-2581E-A/B/C)
D710	001-0529-35	MA8062M
		(PE-2581E-A/B/C)
D711	001-0529-35	MA8062M

REF No.	PART No.	DESCRIPTION
		(PE-2581E-A/B/C)
D712	001-0529-35	MA8062M
		(PE-2581E-A/B/C)
D713	001-0529-35	MA8062M
		(PE-2581E-A/B/C)
C701	168-4732-78	50V0.047uF
C702	168-4732-78	50V0.047uF
C703	168-4732-78	50V0.047uF
C704	168-1022-55	50V1000PF
R701	119-1031-15	1/16W10kohm
R702	119-4731-15	1/16W47kohm
R703	119-1241-15	1/16W120kohm

DB238RE
DB338RE/RB
BD239RE/RG

REF No.	PART No.	DESCRIPTION
R704	119-3921-15	1/16W3.9kohm
R705	119-2221-15	1/16W2.2kohm
R706	119-2221-15	1/16W2.2kohm
R707	119-2221-15	1/16W2.2kohm
R708	119-4711-15	1/16W470ohm
R709	119-4711-15	1/16W470ohm
S701	013-6016-50	SWITCH
S702	013-6005-51	SWITCH
S703	013-6005-51	SWITCH

REF No.	PART No.	DESCRIPTION
S704	013-6016-50	SWITCH
S705	013-6016-50	SWITCH
S706	013-6016-50	SWITCH
S707	013-6016-50	SWITCH
S708	013-6016-50	SWITCH
S709	013-6005-51	SWITCH
S710	013-6005-51	SWITCH
S711	013-6005-51	SWITCH
S712	013-6016-50	SWITCH

REF No.	PART No.	DESCRIPTION
S713	013-6005-51	SWITCH
S714	013-6005-51	SWITCH
S715	013-6005-51	SWITCH
S716	016-9900-84	VR W/SHAFT
S717	013-6016-50	SWITCH
S718	013-6005-51	SWITCH
J701	076-0615-00	PLUG
PL701	017-0444-00	PILOTLAMP
PL702	017-0444-00	PILOTLAMP

ISO PWB (B3) section

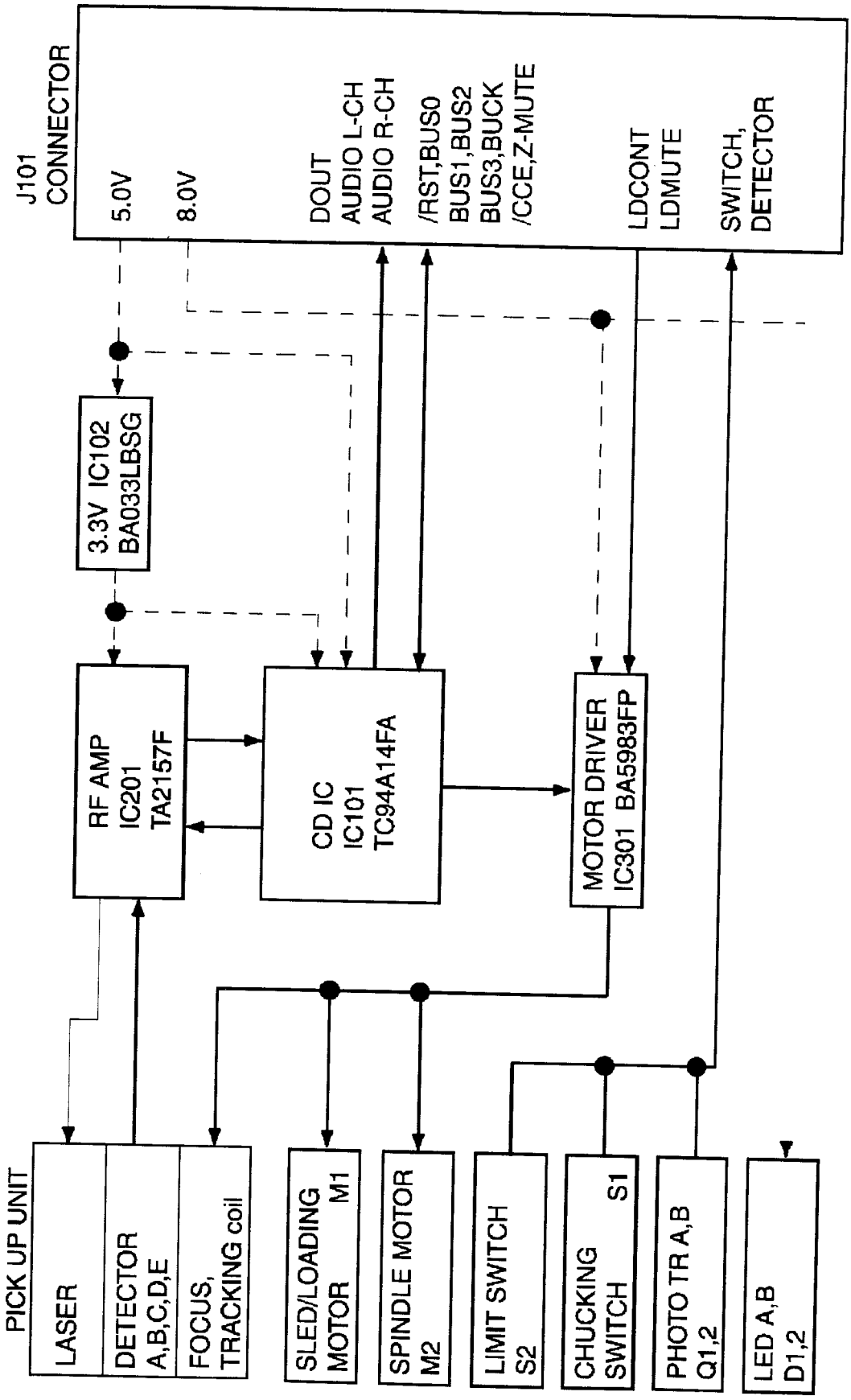
REF No.	PART No.	DESCRIPTION
J601	074-1285-00	ISO CONNECTOR

REF No.	PART No.	DESCRIPTION
FUSE	060-0057-57	15A

REF No.	PART No.	DESCRIPTION
P1	076-0552-09	9P

BLOCK DIAGRAM

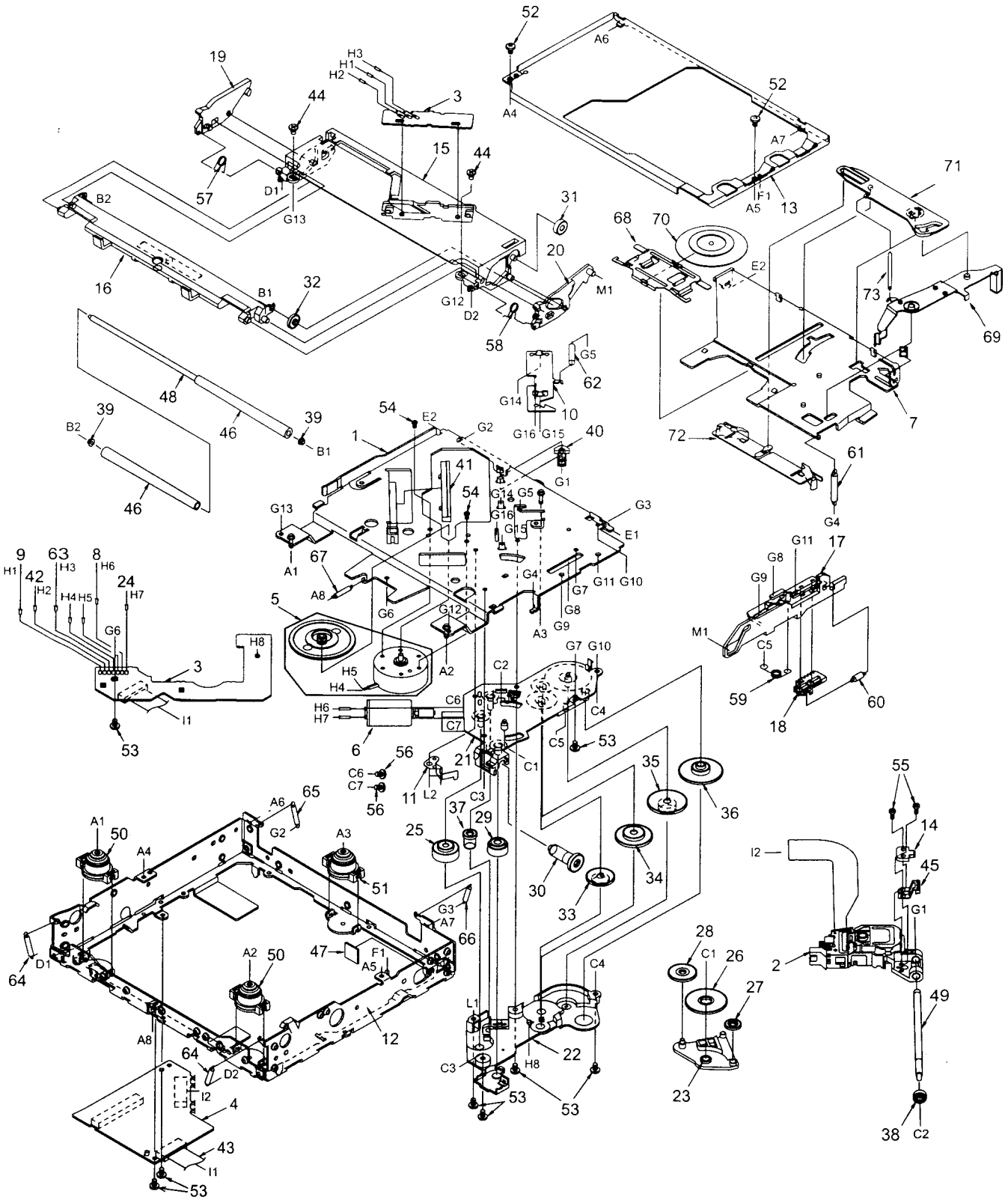
CD mechanism section 929-0221-80



DB238R
DB338R/RB
BD239R/RG

EXPLODED VIEW:

CD mechanism section 929-0221-80



DB238R
DB338R/RB
BD239R/RG

PARTS LIST:

CD mechanism section 929-0221-80

NO.	PARTS NO.	DESCRIPTION	QTY
1	966-0595-25	DRIVE PLATE ASSY	1
2	969-0065-30	PICK UP UNIT	1
3	039-1944-21	LED PWB (WITHOUT COMPONENT)	1
4	039-1945-20	CD PWB (WITHOUT COMPONENT)	1
5	SMA-182-100	MOTOR ASSY(SPINDLE)	1
6	SMA-183-100	MOTOR ASSY(SLED)	1
7	620-1022-24	CLAMPER LINK	1
8	803-4906-60	VINYL COAT WIRE(ORG)	1
9	816-2591-00	LEAD WIRE(YEL)	1
10	620-1025-22	ID-LOCK PLATE	1
11	620-1026-21	SPRING PLATE	1
12	620-1027-25	LOWER CHASSIS	1
13	620-1028-22	UPPER CHASSIS	1
14	966-0638-20	SH-RACK-ASSY	1
15	621-0598-26	UPPER GUIDE	1
16	621-0599-25	ROLLER GUIDE	1
17	621-0600-25	SHIFT LEVER	1
18	621-0601-21	RACK	1
19	621-0602-22	LOCK ARM(L)	1
20	621-0603-25	LOCK ARM(R)	1
21	621-0604-22	GEAR BASE	1
22	621-0605-22	GEAR COVER	1
23	621-0606-21	IDLE CASE	1
24	816-2590-00	VINYL COAT WIRE(GRN)	1
25	621-0608-21	SECOND GEAR	1
26	621-0609-20	BASE GEAR	1
27	621-0610-20	IDLE GEAR A	1
28	621-0611-20	IDLE GEAR B	1
29	621-0612-21	ROLLER GEAR A	1
30	621-0613-20	ROLLER GEAR B	1
31	621-0614-20	ROLLER GEAR C	1
32	621-0615-21	ROLLER GEAR D	1
33	621-0616-20	POWER GEAR A	1
34	621-0617-20	ROWER GEAR B	1
35	621-0618-20	ROWER GEAR C	1
36	621-0619-20	POWER GEAR D	1

NO.	PARTS NO.	DESCRIPTION	QTY
37	621-0620-20	THREAD GEAR A	1
38	621-0621-20	THREAD GEAR B	1
39	621-0622-21	ROLLER SLEEVE	2
40	621-0623-22	LS-HOLDER	1
41	621-0624-22	GUIDE RAIL	1
42	816-2593-00	LEAD WIRE(PUR)	1
43	816-2542-01	FLAT WIRE(10P)	1
44	716-3473-00	SCREW	2
45	621-0709-20	SH-BASE	1
46	621-0629-20	LOADING ROLLER	2
47	345-8704-20	CUSHION RUBBER	1
48	622-1571-21	ROLLER SHAFT	1
49	624-0018-01	LEAD SCREW	1
50	629-0081-20	DAMPER F	2
51	629-0082-20	DAMPER R	1
52	714-2003-81	MACHINE SCREW	2
53	716-1507-00	SCREW	8
54	716-1733-00	SCREW	2
55	716-3469-00	SCREW	2
56	716-3446-00	SCREW	2
57	750-3465-21	ROLLER SPRING(L)	1
58	750-3466-20	ROLLER SPRING(R)	1
59	750-3467-21	SHIFT SPRING	1
60	750-3468-20	RACK SPRING	1
61	750-3469-20	CLAMPER SPRING	1
62	750-3470-20	ID-LOCK SPRING	1
63	816-2592-00	LEAD WIRE(BLU)	1
64	750-3472-21	DR-SPRING F	2
65	750-3473-20	DR-SPRING RA	1
66	750-3474-20	DR-SPRING RB	1
67	750-3475-21	DR-SPRING C	1
68	620-1023-23	CLAMPER PLATE	1
69	620-1024-23	SENSOR ARM	1
70	621-0708-20	CLAMPER RING	1
71	621-0626-21	STOPPER LINK	1
72	621-0627-21	DISC STOPPER	1
73	750-3471-20	SENSOR SPRING	1

ELECTRICAL PARTS LIST :

CD mechanism section 929-0221-80

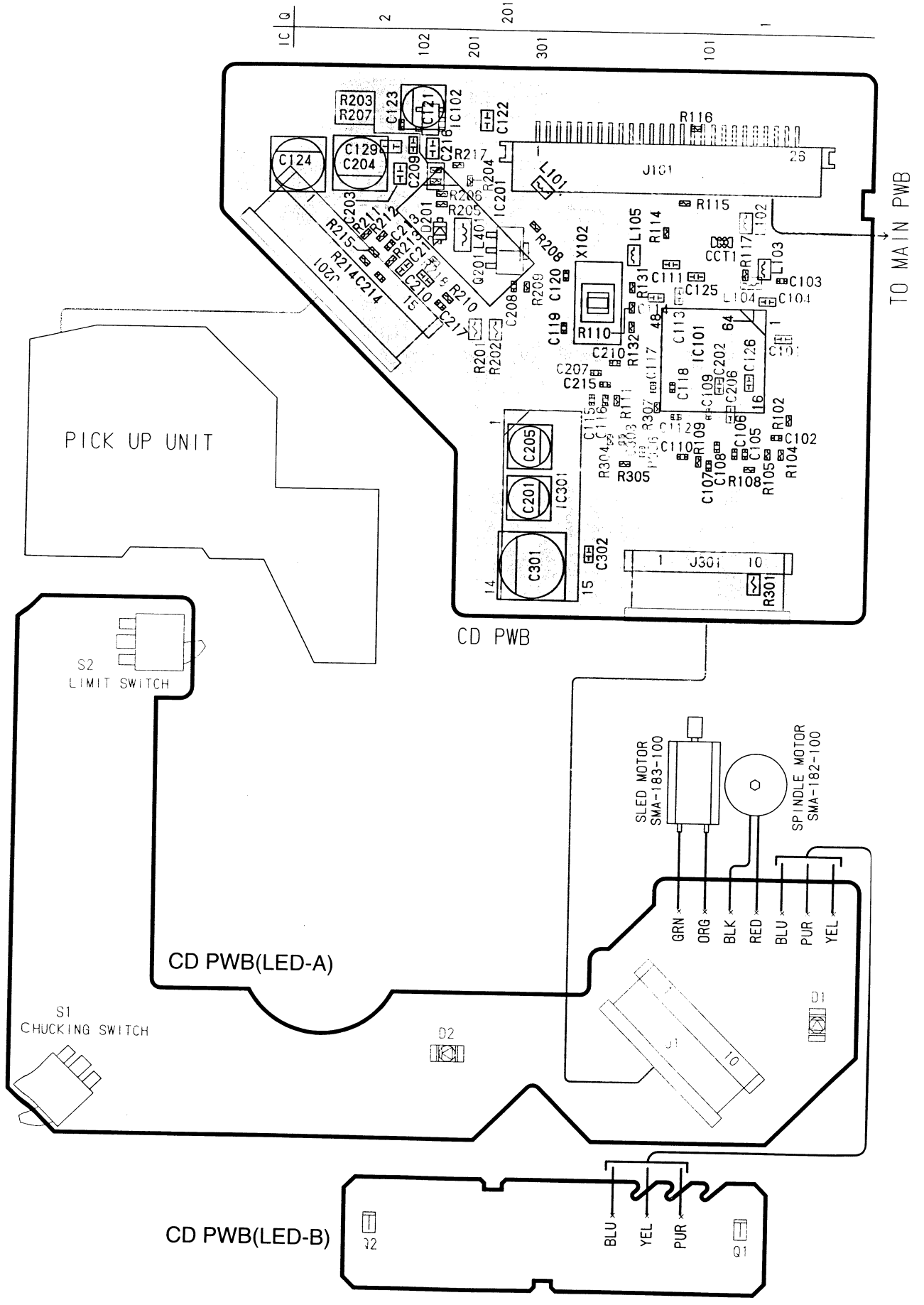
REF No.	PART No.	DESCRIPTION
C 101	168-1042-78	0.1uF
C 102	045-4701-50	47pF
C 103	046-4722-58	4700pF
C 104	168-1042-78	0.1uF
C 105	046-1532-78	0.015uF
C 106	046-1032-78	0.01uF
C 107	046-1032-78	0.01uF
C 108	046-4722-58	4700pF
C 109	046-1522-58	1500pF
C 110	046-3332-78	0.033uF
C 111	168-1042-78	0.1uF
C 112	046-3332-78	0.033uF
C 113	168-1042-78	0.1uF
C 114	168-1042-78	0.1uF
C 115	046-4712-58	470pF
C 116	046-4712-58	470pF
C 117	043-0533-50	0.047uF
C 118	043-0533-50	0.047uF
C 119	045-2701-50	27pF
C 120	045-1801-50	18pF
C 121	163-1063-35	16V 10uF
C 122	178-1052-78	1uF
C 123	046-1032-78	0.01uF
C 124	163-1073-05	4V 100uF
C 125	168-1042-78	0.1uF
C 126	168-1042-78	0.1uF
C 129	178-1052-78	1uF
C 201	163-3363-05	4V 33uF
C 202	168-1042-78	0.1uF
C 203	178-1052-78	1uF
C 204	163-1073-05	4V 100uF
C 205	163-3363-05	4V 33uF
C 206	168-1042-78	0.1uF
C 207	043-0533-50	0.047uF
C 208	046-6822-58	6800pF

REF No.	PART No.	DESCRIPTION
C 209	168-1042-78	0.1uF
C 210	043-0533-50	0.047uF
C 211	168-1042-78	0.1uF
C 212	168-1042-78	0.1uF
C 213	045-5096-50	5pF
C 214	045-5601-50	56pF
C 215	043-0533-50	0.047uF
C 216	178-1052-78	1uF
C 217	045-1011-50	100pF
C 301	163-1073-35	16V 100uF
C 302	168-1042-78	0.1uF
C 303	043-0533-50	0.047uF
D 201	001-0516-90	MA111
IC 101	051-6376-00	TC94A14FA
IC 102	051-3279-90	BA033LBSG
IC 201	051-5710-90	TA2157F
IC 301	051-6049-08	BA5983FP-E2
J 101	074-1228-76	26P
J 201	074-1138-65	15P
J 301	074-1138-60	10P
L 101	010-2285-57	BLM21B102SPT
L 102	010-2285-57	BLM21B102SPT
L 103	010-2285-57	BLM21B102SPT
L 104	010-2285-57	BLM21B102SPT
L 105	010-2285-57	BLM21B102SPT
L 401	010-3050-93	10uH
Q 201	131-1188-50	2SB1188
R 102	033-5621-15	1/16W 5.6k ohm
R 104	033-4731-15	1/16W 47k ohm
R 105	033-1041-15	1/16W 100k ohm
R 108	033-1531-15	1/16W 15k ohm
R 109	033-1031-15	1/16W 10k ohm
R 110	033-1051-15	1/16W 1M ohm
R 111	033-3321-15	1/16W 3.3k ohm
R 114	033-2211-15	1/16W 220 ohm

REF No.	PART No.	DESCRIPTION
R 115	033-2211-15	1/16W 220 ohm
R 116	033-1031-15	1/16W 10k ohm
R 117	033-1021-15	1/16W 1k ohm
R 131	033-4711-15	1/16W 470 ohm
R 132	033-2211-15	1/16W 220 ohm
R 201	117-2201-15	1/10W 22 ohm
R 202	117-2201-15	1/10W 22 ohm
R 203	033-1041-15	1/16W 100k ohm
R 204	033-1041-15	1/16W 100k ohm
R 205	033-1541-15	1/16W 150k ohm
R 206	033-1541-15	1/16W 150k ohm
R 207	033-1041-15	1/16W 100k ohm
R 208	033-8231-15	1/16W 82k ohm
R 209	033-6811-15	1/16W 680 ohm
R 210	033-6831-15	1/16W 68k ohm
R 211	033-1831-15	1/16W 18k ohm
R 212	033-2721-15	1/16W 2.7k ohm
R 213	033-1011-15	1/16W 100 ohm
R 214	033-1021-15	1/16W 1k ohm
R 215	033-1031-15	1/16W 10k ohm
R 217	033-1041-15	1/16W 100k ohm
R 218	033-2211-15	1/16W 220 ohm
R 301	117-6811-15	1/16W 680 ohm
R 304	033-3921-15	1/16W 3.9k ohm
R 305	033-3921-15	1/16W 3.9k ohm
R 306	033-1041-15	1/16W 100k ohm
R 307	033-2211-15	1/16W 220 ohm
X 102	060-1528-90	16.934M
D 1	001-7058-90	AN1105W-RR
D 2	001-7058-90	AN1105W-RR
J 1	074-1138-60	10P
Q 1	060-4015-90	PS1192H
Q 2	060-4015-90	PS1192H
S 1	013-7414-50	CHUCKING
S 2	013-7413-50	LIMIT

PRINTED WIRING BOARD:

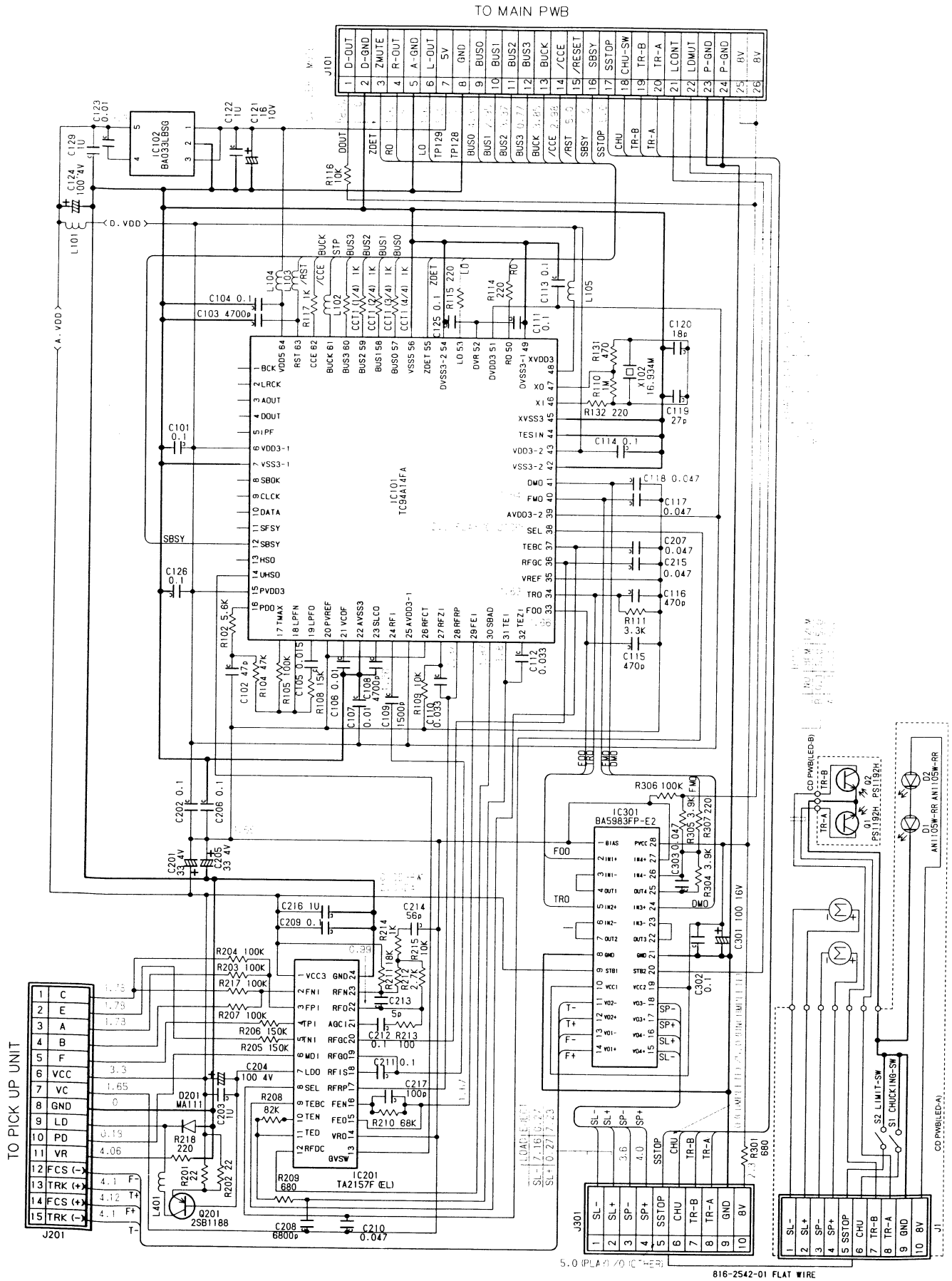
CD mechanism section 929-0221-80



DB238R
DB338R/RB
BD239R/RG

CIRCUIT DIAGRAM :

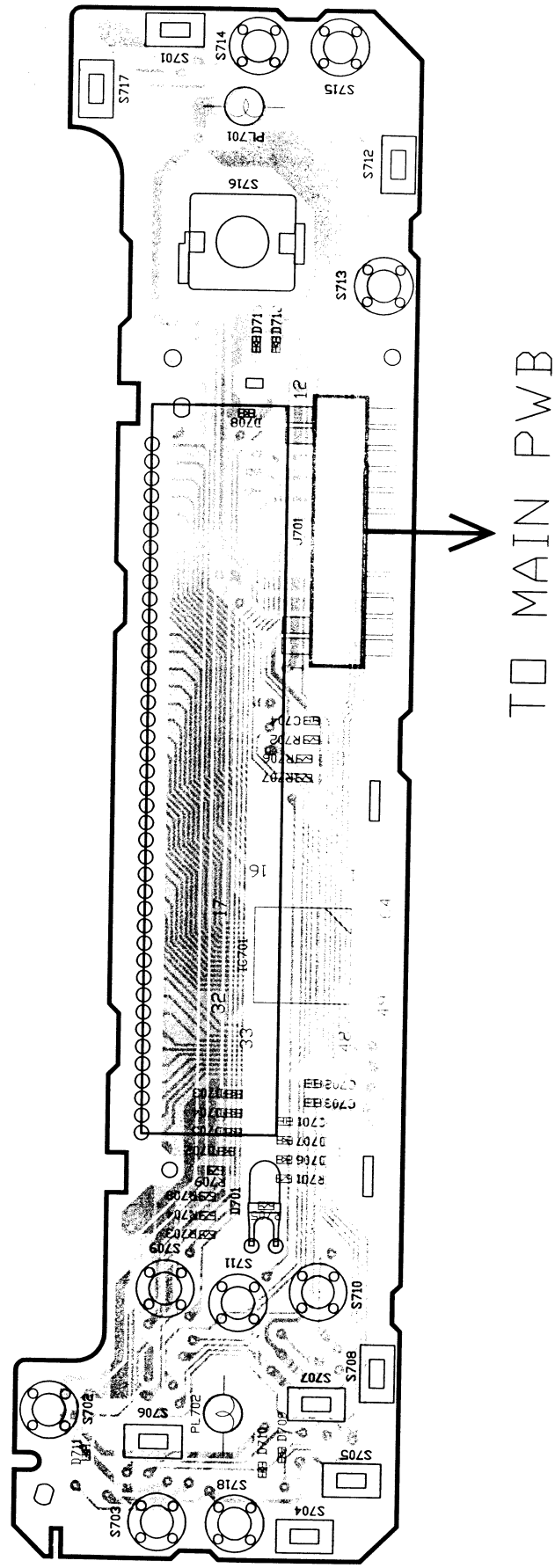
CD mechanism section 929-0221-80



DB238R
DB338R/RB
BD239R/RG

PRINTED WIRING BOARD:

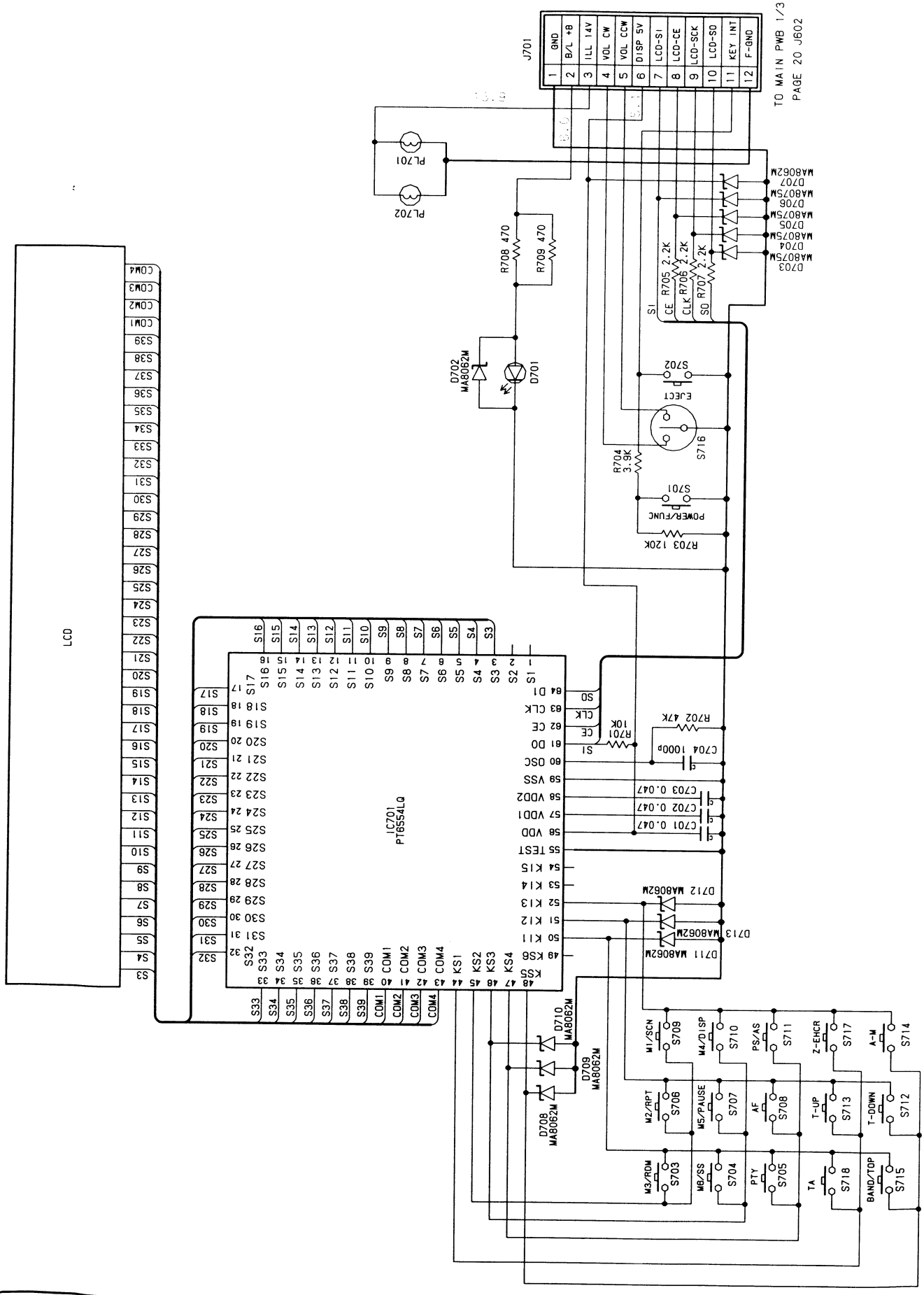
Switch PWB (B2) section



DB238R
DB338R RB
BD239R RG

CIRCUIT DIAGRAM:

Switch PWB (B2) section



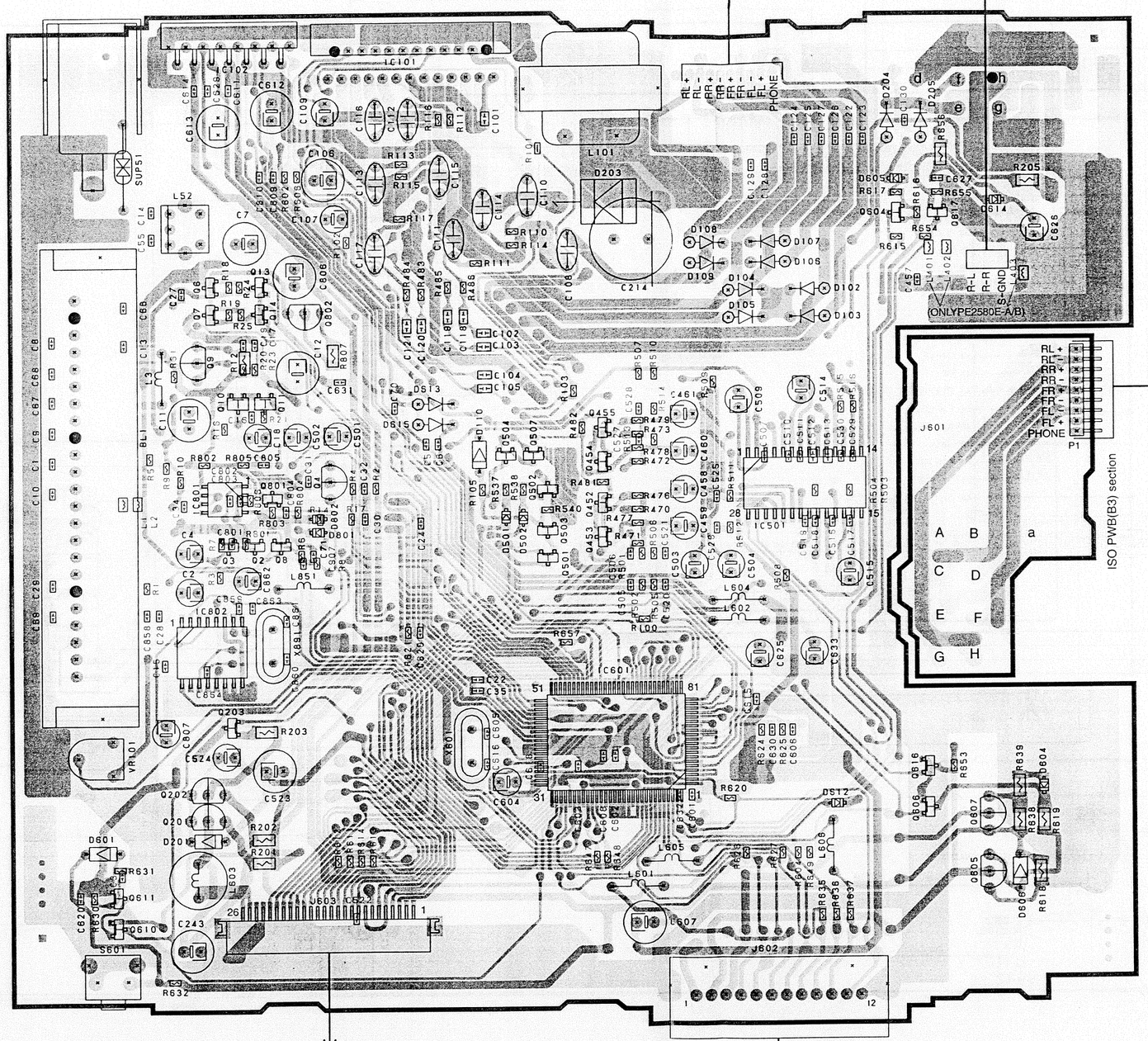
DB238R
DB338R/RB
BD239R/RG

PRINTED WIRING BOARD:

Main PWB (B1) section

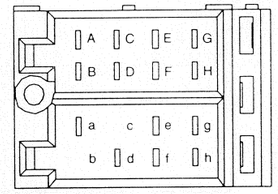
Marks ● and marks GND are on the ground of the DIP layer.

Q	IC
	IC101
	IC102
Q504	
Q617	
Q13	
Q6	
Q7 Q14	
Q802	
Q9	
Q10 Q11	
Q455	
Q504 Q507	
Q454	
Q801 Q4	IC801
Q502	
Q452	
Q503	IC501
Q453	
Q3 Q8	
Q2 Q501	
	IC802
	IC601
Q203	
Q516	
Q202	
Q606	
Q201 Q607	
Q605	
Q611	
Q610	



RED
BLACK(REAR)
RIGHT
WHITE
LEFT
RCA PIN CORD
855-5426-53

J601



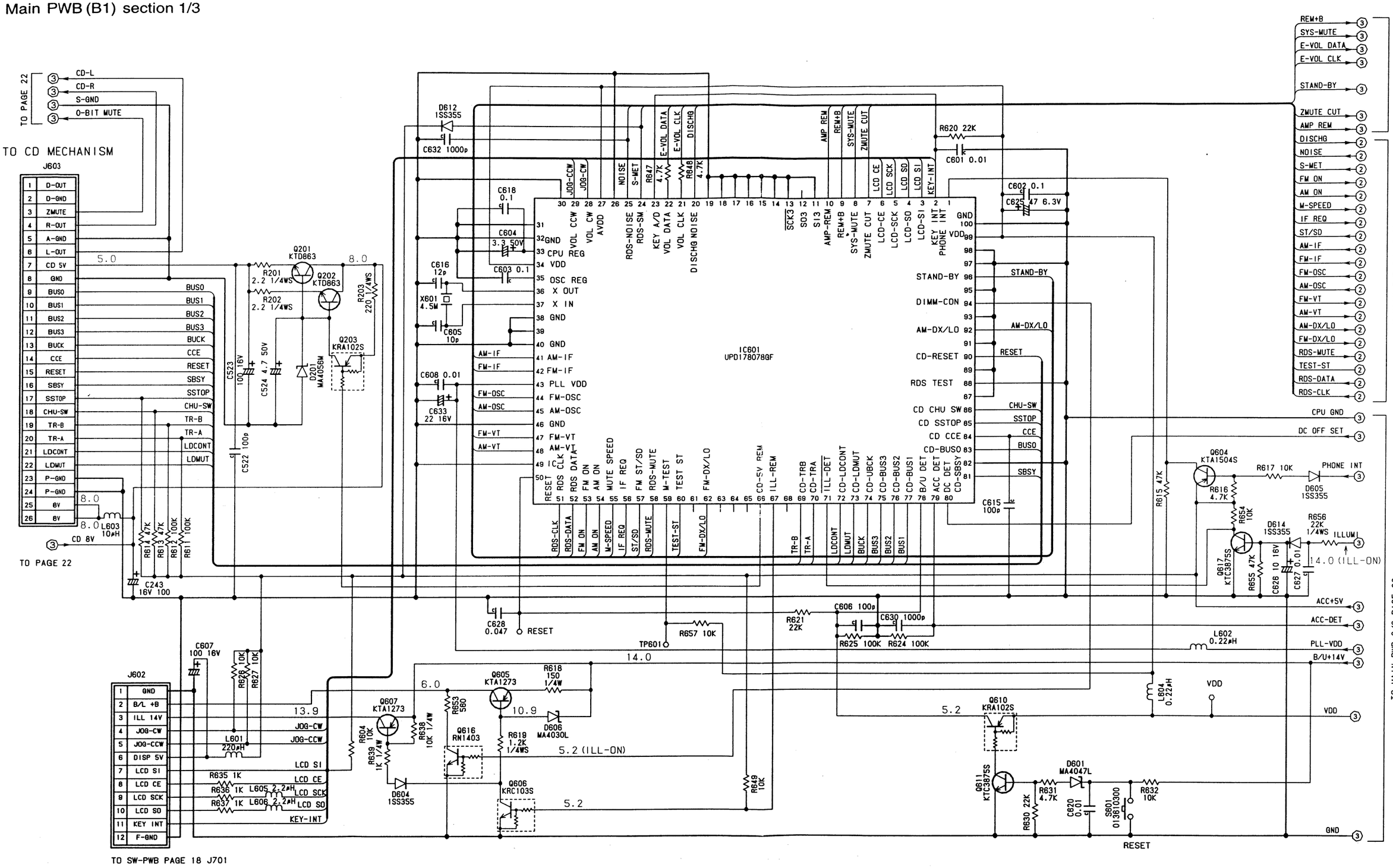
ISO CONNECTOR PLUG

h	GROUND	H	SP–RL –
g	ACC	G	SP–RL +
f	ILLUMI	F	SP–FL –
e	REM	E	SP–FL +
d	BATTERY	D	SP–FR –
c	NO CONNECTION	C	SP–FR +
b	NO CONNECTION	B	SP–RR –
a	PHONE MUTE	A	SP–RR +

DB238R
DB338R/RB
BD239R/RG

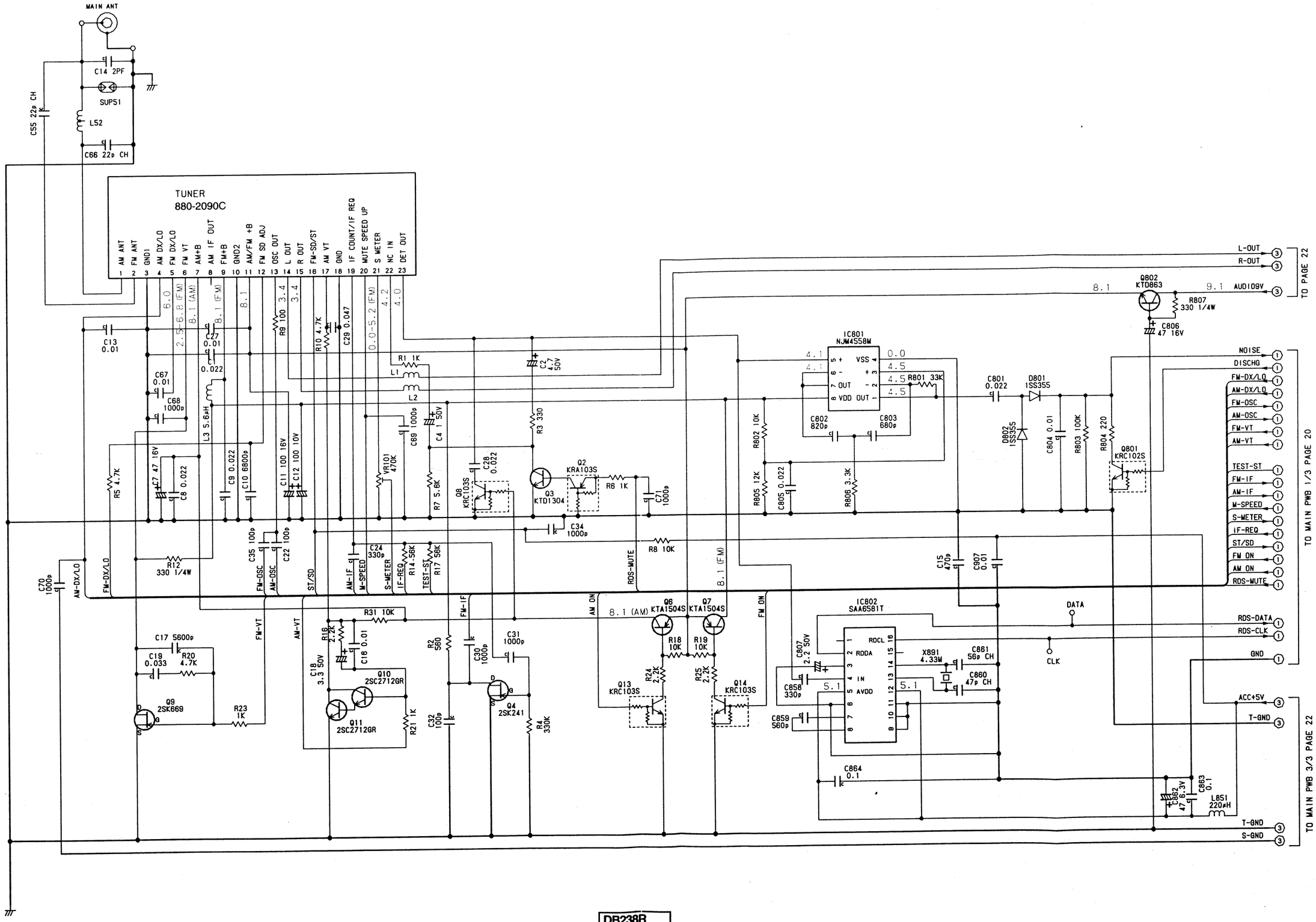
CIRCUIT DIAGRAM:

Main PWB (B1) section 1/3



CIRCUIT DIAGRAM:

Main PWB (B1) section 2/3

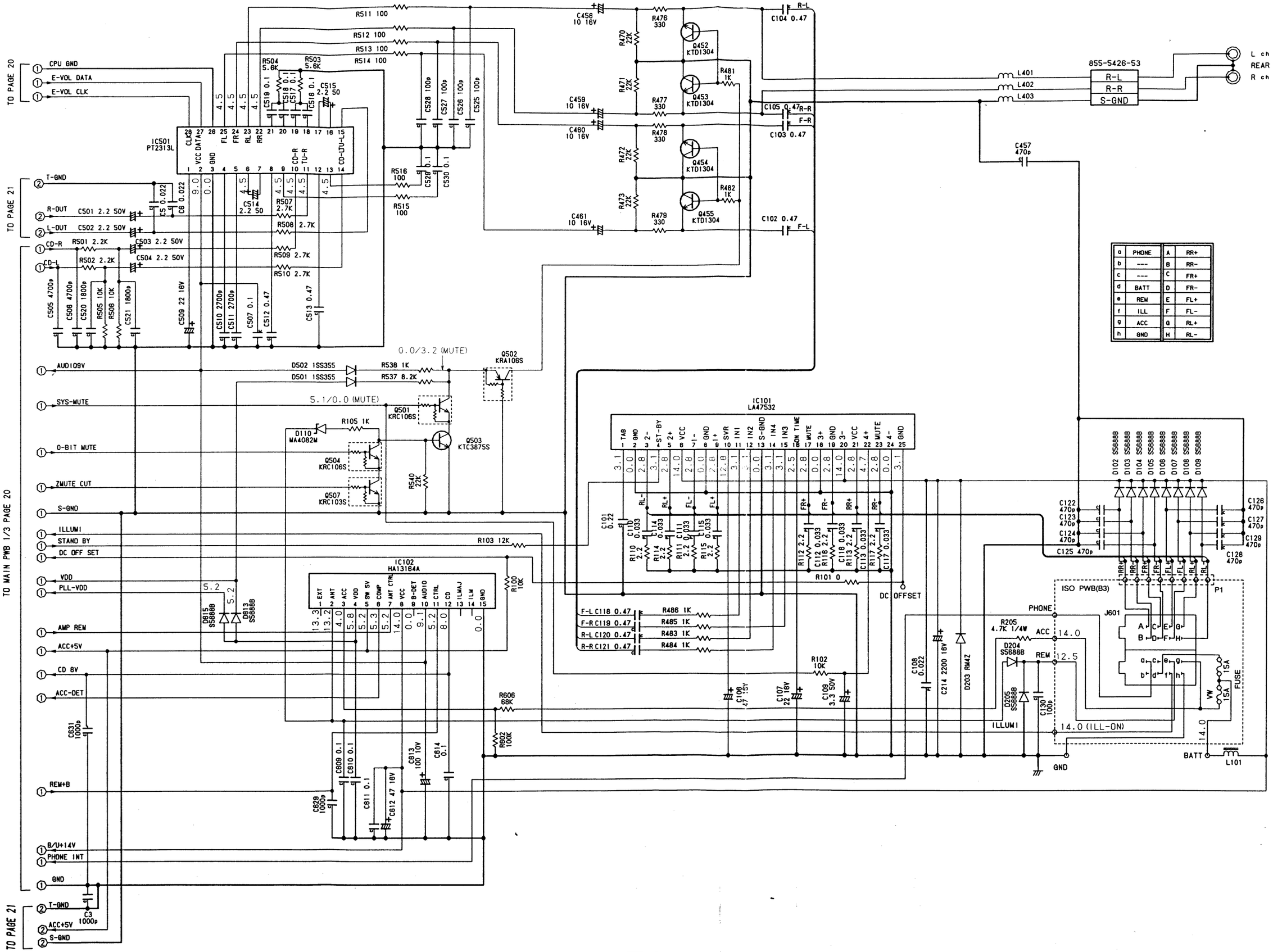


DB238R
DB338R/RB
BD239R/RG

CIRCUIT DIAGRAM:

Main PWB (B1) section 3/3

*REF No.with "r(small letter)" like r101 means a jumper wire.



DB238R
DB338R/RB
BD239R/RG